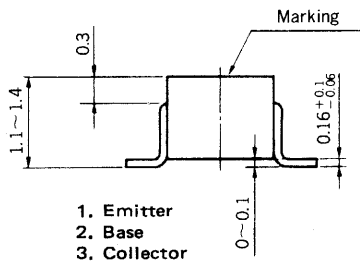
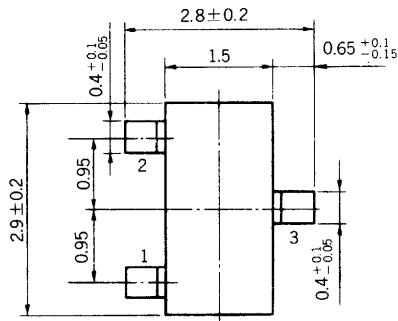


AUDIO FREQUENCY POWER AMPLIFIER
PNP SILICON EPITAXIAL TRANSISTOR
MINI MOLD

PACKAGE DIMENSIONS

in millimeters



- 1. Emitter
- 2. Base
- 3. Collector

DESCRIPTION

The 2SB624 is designed for use in small type equipments especially recommended for hybrid integrated circuit and other applications.

FEATURES

- Micro package.
- High DC current gain. h_{FE} : 200 TYP. ($V_{CE} = -1.0$ V, $I_C = -100$ mA)
- Complimentary to the NEC 2SD596 NPN Transistor.

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Current ($T_a = 25$ °C)

Collector to Base Voltage	V_{CBO}	-30	V
Collector to Emitter Voltage	V_{CEO}	-25	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current (DC)	I_C	-700	mA

Maximum Power Dissipation

Total Power Dissipation at 25 °C Ambient Temperature	P_T	200	mW
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Maximum Temperatures

Storage Temperature Range	T_{stg}	-55 to +150	°C
Operating Junction Temperature	T_j	150	°C

ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

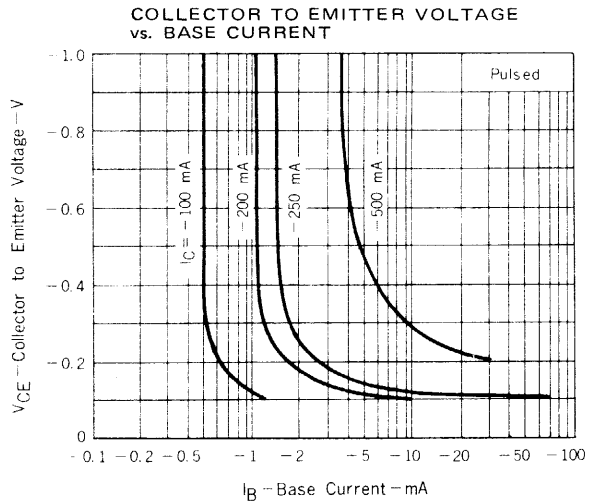
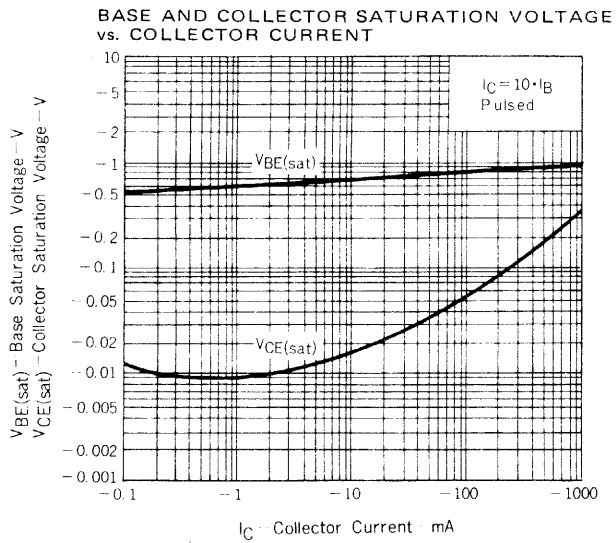
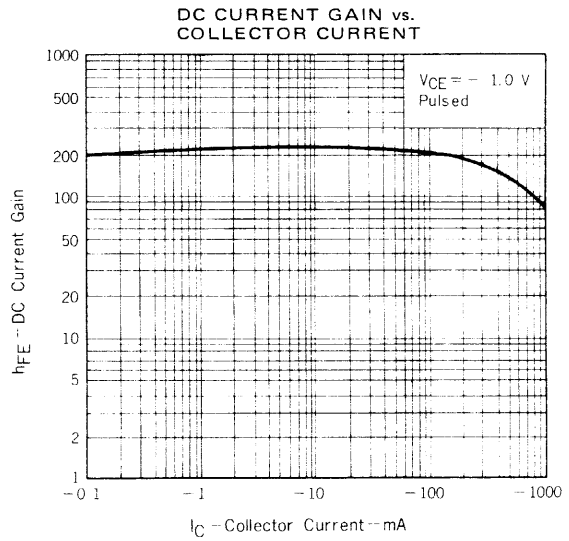
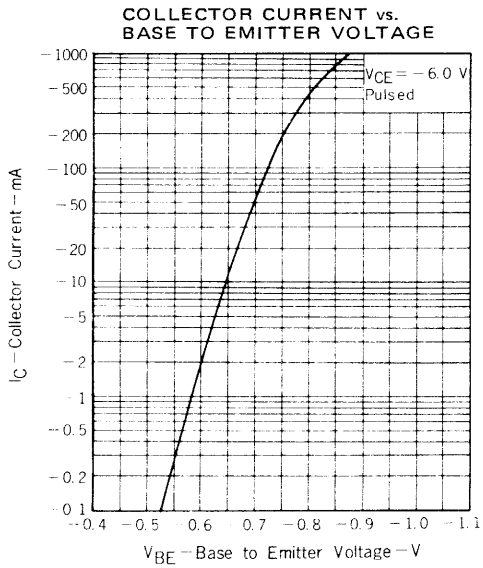
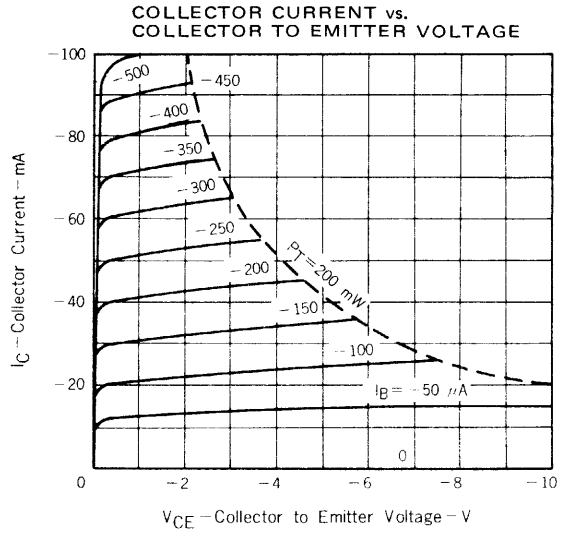
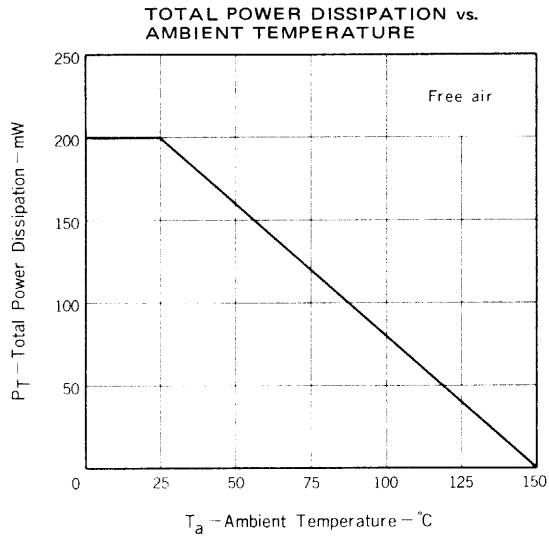
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I_{CBO}			-100	nA	$V_{CB} = -30$ V, $I_E = 0$
Emitter Cutoff Current	I_{EBO}			-100	nA	$V_{EB} = -5.0$ V, $I_C = 0$
DC Current Gain	h_{FE1}	110	200	400		$V_{CE} = -1.0$ V, $I_C = -100$ mA *
DC Current Gain	h_{FE2}	50				$V_{CE} = -1.0$ V, $I_C = -700$ mA *
Base to Emitter Voltage	V_{BE}	-600	-640	-700	mV	$V_{CE} = -6.0$ V, $I_C = -10$ mA *
Collector Saturation Voltage	$V_{CE(sat)}$		-0.25	-0.6	V	$I_C = -700$ mA, $I_B = -70$ mA *
Output Capacitance	C_{ob}		17		pF	$V_{CB} = -6.0$ V, $I_E = 0$, $f = 1.0$ MHz
Gain Bandwidth Product	f_T		160		MHz	$V_{CE} = -6.0$ V, $I_E = 10$ mA

* Pulsed PW ≤ 350 μ s, Duty Cycle ≤ 2 %

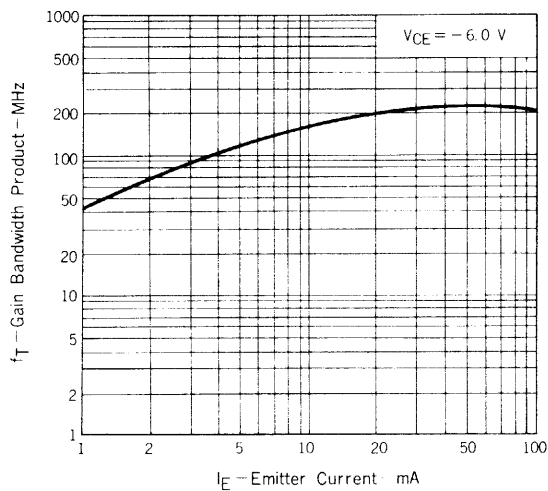
h_{FE1} Classification

Marking	BV1	BV2	BV3	BV4	BV5
h_{FE1}	110 to 180	135 to 220	170 to 270	200 to 320	250 to 400

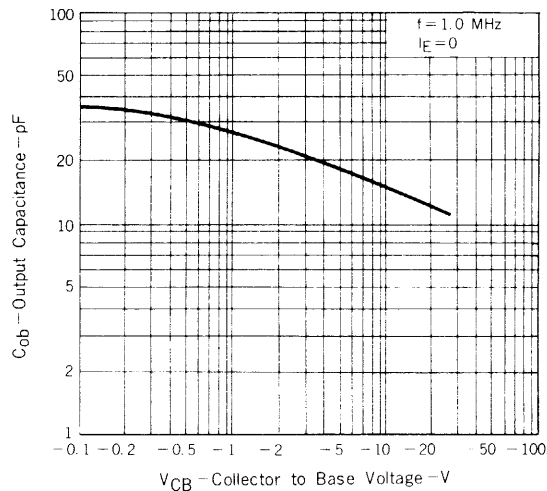
TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)



GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



OUTPUT CAPACITANCE vs. COLLECTOR TO BASE VOLTAGE



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